GrummanWorld

Volume 7, Number 20 | Our Employees Are Our Major Shareholders | October 28, 1988

Grumman, Italian Firm Team For USAF Trainer Bid

Grumman and Gruppo Agusta SpA of Italy are blending their talents in a bid to build a new U.S. Air Force primary trainer aircraft that could be sold to other military customers.

Grumman Aircraft Systems Division President Pete Oram and Raffaello Teti, chairman and chief executive officer of Gruppo Agusta, signed a memorandum of intent to initiate this cooperative venture. Grumman and Agusta are the first companies to announce a teaming effort.

According to Tom Kane, senior vice president-Business Development, Agusta had a good track record with Grumman. "We did some work with Agusta to help them with composites some years ago," Kane says.

"This is in a preliminary stage," says Vin Padovano, Grumman's program director. "We have a long stream of discussion ahead with Agusta as to who will do what in the program."

The first step has been taken, however. The companies will establish a joint program committee to examine costs and ways to modify the Agusta/SIAI Marchetti S.211 trainer. The S.211 is a pressurized, tandem-seat aircraft powered by a single, turbofan, Pratt & Whitney jet engine. The aircraft has been sold to the Republic of Singapore Air Force and has recently been ordered by the Republic of the Philippines.

The U.S. Air Force will need more than 500 new training aircraft to replace its aging T-37 fleet used to train undergraduate pilots.

"The Air Force is looking for affordability," says Padovano. "They want an off-the-shelf trainer in current production. All of those available are foreign-made."

European Flair. *One nation already trains its pilots with the SIAI Marchetti S.211, and another soon will. With minor modifications, Grumman believes the S.211 would be an ideal primary trainer for the U.S. Air Force.*

The Air Force program is called the Primary Aircraft Training System (PATS).

The Air Force requirements still have not been formalized. The first PATS studies are to be awarded next year. Still, Kane says there are many reasons to go with the S.211 at this early stage.

"We felt that a turboprop trainer would not be viable if the cost of a jet is competitive with a turboprop," he says. "The S.211 gives us outstanding performance at a low cost and it has modern technology." The S.211 first flew in 1981. Current U.S. Air Force trainers represent 1950s technology.

The Primary Aircraft Training System will go into production in 1994. Grumman will be the prime contractor for the bid. In addition to the aircraft, Grumman and Agusta would provide simulators, support equipment and training materials.

The S.211 and its training system will have to be "missionized." This just means, for example, a change of cockpit displays and other relatively minor aircraft modifications required to meet Air Force needs.

Grumman will send a team of experts from manufacturing, engineering, integrated logistics support and business operations to Italy to study the S.211 and the rest of its training system.

Grumman sees additional S.211 sales opportunities for the European-NATO Joint Jet Pilot Training program and other foreign military sales. The estimated worldwide market for over 1,000 training aircraft and associated training systems could produce sales of more than $4 billion.

An international leader in aerospace, Gruppo Agusta has three divisions — Helicopters, Airplane and Aerospace Systems — and employs 10,000 people in 24 sites in Italy and abroad. The company, which traces its beginnings to 1907, has annual sales of $800 million.

Gruppo Agusta's Airplane Division specializes in the production of modern training aircraft for primary and basic jet training.

Grumman had studied the list of potential partners before teaming with Agusta. There are about 15 trainers now being produced by Western nations. Kane says that Grumman narrowed the list to three: Agusta's S.211, another European plane and one from South America.

But Agusta was also interested in Grumman. Almost two years ago, Agusta approached Grumman about teaming on the PATS program. Agusta, which has U.S. headquarters in Philadelphia, later brought an S.211 to Calverton for Grumman to fly.

Grumman's chief test pilot, Kurt Schroeder, was one of eight Grumman pilots who flew the S.211 there in April 1987. Schroeder said in his test report, "the airplane is simple to operate, pleasant to fly, has very honest flying qualities and exhibits the level of performance required for the next generation trainer."

Padovano says the Air Force plans to buy three different trainers in the coming years and two of them will be off-the-shelf aircraft. Before PATS, the service will first buy a business aircraft to be its tanker transport training system. Grumman has decided not to enter that competition.

The next purchase is PATS. Finally, the Air Force will be looking to design and develop an advanced, reconnaissance-fighter-attack training system. "We are studying that program but it's too early to decide whether we will enter that competition," says Kane. The fighter trainer is not slated to go into service until the year 2005.■

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McGrath: Our Long Island Work Force Is The Heart Of Our Manufacturing Operations

Tom McGrath admits that it has been a traumatic year for Grumman people in Product Operations on Long Island. But the senior vice president of Aircraft Systems reports that things look better for Grumman.

"Earlier this year, there was a lot of confusion and uncertainty about the future production of the F-14, the A-6, and the EA-6B," says McGrath.

The gloom and doom scenario has disappeared. "It looks like we'll be building 24 F-14D's a year," he says. "Congress is interested in continuing the EA-6B and starting the A-6G program, and the Navy is studying a multiyear contract for the production of 50 E-2C's."

Ask McGrath if Grumman is moving manufacturing off Long Island, and the man grimaces. "Why do people keep asking that question? Our Long Island work force is the heart of our manufacturing operations. All the off-sites feed the final assembly plants on Long Island. We've invested hundreds of millions of dollars to modernize our plants here. It makes no sense to even think about moving."

McGrath acknowledges that some assemblies have been — and will continue to be — transferred to off-sites, but that has been going on for years. "It's part of our win strategy. Our overhead is very high on Long Island. When we bid a job, we average in our low overhead facilities off Long Island. This helps to keep our price down, enabling us to compete with the larger aerospace firms."

However, McGrath points out that while some work is suited for these off-sites, major aircraft assembly is not. "We don't have the facilities or the people to produce an entire aircraft from scratch off Long Island," he says.

McGrath's organization is now working on a proposal to close the Bethpage airport and move all the people in Building 4 to Calverton. The E-2C Hawkeye is built and flight tested from this Bethpage facility.

"No one has approved any moves yet," emphasizes McGrath. "But closing the airport is a sensible and economical business approach. It's very expensive overhead. We have a more fully equipped flight test facility 50 miles east at Calverton. In fact, right now, each time an E-2C takes off, the Calverton airport must be open. If any problems arise during the test flight, the E-2C must land at Calverton."

If and when the airport is closed, moving the Building 4 people, equipment and work will be done in phases over an extended period of time. "You can't just pack up and move overnight," he adds. "It has to be a smooth transition." He reports that the benefits of the move will far outweigh the costs of keeping the airport open.

There are no plans to move other Bethpage manufacturing facilities at this time. "We've got one of the most efficient detail parts manufacturing facilities in the industry right here in Building 3," says McGrath. "In fact, the only problem right now is that we need more work."

In recent years, Grumman has spent over $65 million to modernize this facility alone, and another $34 million in other buildings on projects related to the Building 3 modernization. Over the past 10 years, Grumman has invested over $137 million for manufacturing modernization in Bethpage and Calverton.

"Building 3 was designed to handle a lot more work than it does now," says McGrath. "Even if our aircraft production doubled, it still wouldn't be operating at peak capacity, so we are aggressively pursuing detail parts manufacturing subcontracts to get this facility operating at higher efficiency."

Grumman is now bidding on major work packages with two giant aerospace firms that are looking to off-load some of their detail parts work.

McGrath is concerned about young people leaving the company. "If this trend continues, we'll lose the experienced, talented work force we've had on Long Island for almost 60 years," says McGrath. "*That* would have a big impact on our Long Island operations."

Even though the 1988 layoffs are nearly completed, McGrath does expect layoffs to continue on Long Island. "I believe that the continuing change in the skill mix will force us to continue layoffs in certain areas. However, we will continue to retrain Grummanites wherever possible."

Right now, a group of people who worked in Great River are being retrained to work at Calverton in final assembly. "We have dedicated, hard working people," says McGrath. "The skills we're looking for are not readily available in the local marketplace. We recognize that. Retraining is the way to go. If we cross-train people, we can take advantage of the flexibility it offers."

Hearing complaints about low morale in Production discourages McGrath. "I can understand how people were down with the layoffs and the uncertainty about the future of some of our major aircraft programs," says McGrath. "But the hard times are behind us now; the future looks a lot brighter. If we want to control our own destiny, we can't keep looking back. We've got to step up to the challenge and produce good quality products at a competitive price."

Grumman has made inroads in recent years. "We are building the same number of planes with fewer people," he says. "People are finding better ways to do the job. But we have to do even more. The challenges facing us are the same ones facing our major competitors.

"We've got to get back to basics. You are truly accountable for the job you do; you are the expert. If everybody develops that attitude and suggests better ways to get the job done, then we can control our own destiny."■

Tom McGrath

Grumman Gets $34 Million Pact To Support Navy Missile Test Center

POINT MUGU, California — Grumman Aircraft Systems Division has won a $34 million competitive contract award to provide systems engineering support to the Pacific Missile Test Center here.

The contract, a continuation of an existing work package, spans three years. Grumman's Point Mugu Operations will provide tactical software and integration engineering. It will also provide operations and maintenance support for the software test labs at the center, and flight test engineering for the F-14 AWG-9 radar, the EA-6B ALQ-99 jamming system, and weapon system trainers.

The Systems Integration Test Stations are packages of the actual components aboard an aircraft. Hooked up to computers that feed them flight scenarios, the test stations check out new hardware and software before they fly.

There are two EA-6B test stations at Point Mugu, and the third of three F-14 Systems Integration Test Stations is about 60 percent complete. This newest station is for the F-14D; the previous two were for the F-14A and A(PLUS).

Grumman has had a contingent at Point Mugu since 1969, when the Navy received its first F-14 Tomcats. Since then, the Grumman crew has grown to about 350 people.■

Heads Up. *At Aircraft Systems' Houston Operations in Texas, Charlie Young works on an A-6E aft canopy. He is fastening the canopy's spine assembly to the glass.*

'I Heard It At The Pin Meeting'

O'Brien Says Airport To Close, But Not For Sale

On October 6, Grumman Chairman John O'Brien met with Grummanites who recently celebrated their anniversaries with the company. Highlights of that meeting follow:

John O'Brien: For a change this morning, I thought you might like to see some of the stuff that gets sent to me.

This is a very good cartoon. It shows a picture of our runway, aerial view, and it has a big "For Sale" sign on it.

This is a picture that shows the view out my office window, with some fighters rapidly approaching in formation. The caption is, "Mr. O'Brien, some of the pilots are coming by to discuss the closing of the airfield."

And here are some newspaper headlines that someone cut out and sent me: "More Job Cuts At Grumman"..."Grumman Picks Houston, Not Long Island"..."Grumman Chief Says Family's Too Big" — good picture of me — "Grumman May Sell 200 Acres At Bethpage"...and the one that got a lot of my favorite people at Grumman pretty upset, "Think White Collar, Grumman Boss Says."

That headline referred to the speech I gave to the Long Island Association. What I said in that speech was that we ought to protect the manufacturing jobs we already have on Long Island, and not try to attract more. But as a result of that "White Collar" headline in *Newsday*, I hear that manufacturing people in Building 1 have been coming to work in white shirts. Also ties, incidentally, which is not so great because it could be a safety problem.

Now, it was *Newsday* that used the term, "white collar." It was not in my speech, because I don't distinguish between white collar and blue collar. We don't like that terminology here, and we don't use it. And I can tell you, I've done plenty of manufacturing work myself. Everybody in Grumman is important. We need everyone in order to build our products.

Q&A Session. *Grumman Chairman John O'Brien answers a Grummanite's question at the October 6 pin meeting, held in corporate headquarters. (Photo by Bob Sagliocca)*

'I don't like to see the runway shut down, but we have to use our assets in the best interests of the company.'

I try to put as much information as I legally can in *Grumman World*. Maybe because it's free, you don't believe it. Maybe if we start charging 35 cents a copy for it, you'll believe it the way you believe everything you read in *Newsday*? I don't know...

Okay, what else. Some people think we've sold Building 1 and the runway to some Japanese investors. Not true.

In the first place, we are not selling the property. We're going to develop it with a property developer: probably office buildings, light manufacturing, things of that nature. We'll lease those facilities, which will generate cash flow for us without risking any of our money at all. I don't like to see the runway shut down, but we have to use our assets in the best interests of the company.

Someone else says, "O'Brien misses pin meetings because he doesn't care." Not true, either. I've missed two pin meetings this year, and I missed them because I was down in Washington, fighting for jobs. Our people have been down there and I've been with them.

We're trying to convince the Navy to buy 24 F-14's a year instead of 12. Also, the Navy is now going forward to Congress to talk about a multiyear buy of nine or 10 E-2C's a year, instead of five or six. I've been at the Senate testifying against taxation practices that are unfair to companies like ours. I've been on the road a lot, talking to stock analysts — and a lot of our stock is being bought. We're one of the few "buy" recommendations in the defense sector, because things are starting to look good for us, and because we're fighting for what we want. I'm much more optimistic about our outlook now than I was six months ago. So I can assure you that when I have to miss a pin meeting, it's for a good reason.

I'm still getting lots of questions, primarily from our production people, about why we're putting work off Long Island. An airplane system or an airframe built 100 percent on Long Island would be too expensive; we just couldn't compete. By putting some of the work in areas of the country where the cost of living is lower and consequently the cost-per-hour is lower, we're able to keep our prices competitive. We've been doing that since the 1960's, and it helps protect the remaining jobs on the Island.

'I will change anything in this company that you and I can agree needs to be changed.'

But I still hear that our young people are punching out of here because they think we're going out of business. They're leaving for jobs in the police department, or they're racing for the few job openings in Melbourne. We're starting to win some of our political battles — but when we win them, we'd better have somebody left here to design and build the airplanes!

How about some questions?

Why are Grummanites being laid off when there are still job shoppers around?

O'Brien: Although many job shoppers have been terminated, we still have some around because we need their particular skills. When we can't find people to hire with the skills we need to build our products, we have no choice. And, generally, we have to pay the job shop house more than we would pay an employee. It's a serious problem and we haven't found an answer to it, since we're short of certain skills. (See interview with Tom McGrath, page 2.)

What's the situation between Grumman and Boeing on the A-6 composite wing program?

O'Brien: The Navy wanted composite wings to replace the fatigued wings on many A-6s, and they had $100 million to spend on it. We told them the job would cost $200 million, and they gave the contract to Boeing.

To the best of my knowledge, Boeing has now spent about $300 million on that wing, and we still don't have them. It is really messing up our assembly line. The Navy is in the process of buying 10 more sets of metal wings from us.

Meanwhile, we have A-6s parked out there because we don't have the wings to put on them. It's a real mess, and it's not our responsibility. It's between Boeing and the Navy, but we're bearing the brunt of it.

Will there be changes in our operating philosophy because of the new quality program?

O'Brien: Absolutely. I will change anything in this company that you and I can agree needs to be changed. That's what GQ is all about. But you've got to tell us. I don't care whether you've been here one year, five years, or 50 years. You're the people who

(Continued on page 4)

Grumman World — Vol. 7, No. 20, October 25, 1988. Published twice a month for active and retired employees of Grumman Corporation. 1111 Stewart Ave., Bethpage, N.Y. 11714. W.B. Jones, Vice President-Public Affairs.

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Grummanites In Maryland Get Opportunity To Show Off

Grummanites at Electronics Systems' Salisbury Operations in Maryland got the chance to show off their work to their families recently.

On Saturday, September 17, the U.S. Navy flew an E-2C Hawkeye and a C-2A Greyhound into Salisbury Wicomico Airport. For many Grummanites and their families, it was the first time they had seen the airplanes that use the wiring harnesses and other electrical components they build. During the four-hour visit, about 500 people went inside the two aircraft.

"My number was in one of them," said Grummanite Bea Cannon. She found a wiring harness she built in the Greyhound.

Several years ago, June Laughlin used to install wiring harnesses in Olson trucks at Grumman's Montgomery, Pennsylvania, plant. This is the first time she's seen her aircraft wiring harnesses in a Grumman plane.

Laughlin brought her daughter, Vicki, and her three grandsons, Shawn, Joshua and Christopher. "The children really enjoyed going through the planes," she said. "One of the boys got to sit in the pilot's seat."■

In The Pilot's Seat. *A youngster peers out of an E-2C cockpit at the Salisbury Wicomico Airport in Maryland. Grummanites and their families had the opportunity to see an E-2C and C-2A Greyhound during a recent Navy fly-in. (Photo by Ray Sander)*

A Real Booster. *Bill Manthey machines the Grumman-designed Radio Frequency Quadrupole Linear Accelerator (RFQ) in the Model Shop in Bethpage. It is the first particle beam accelerator designed specifically for use in space. This unit is an exact replica of the RFQ that Grumman supplied to the Los Alamos National Laboratory in New Mexico for flight next April. That flight will be the first demonstration of the particle beam in space. (Photo by Bob Settles)*

Obituaries

Richard Andre of Computer Equipment/Software, Calverton, Aircraft Systems Division, died Sept. 15 at the age of 64. He had been with the company since 1964 and resided at 75 Elm St., Sayville, N.Y.

Paul T. Booker of Maintenance, Calverton, Corporate Services Division, died Oct. 6 at the age of 46. He had been with the company since 1973 and resided at 417 Doctors Path, Riverhead, N.Y.

Carolyn J. George of Fabrication, Fleetville, Electronics Systems Division, died July 4 at the age of 48. She had been with the company since 1988 and resided at RD #2, Box 506, New Milford, Pennsylvania.

John F. Glaser Jr. of Inspection, Bethpage, Aircraft Systems Division, died July 21 at the age of 59. He had been with the company since 1963 and resided at 3442 Silverton Ave., Wantagh, N.Y.

Beverly B. Hutchins of Timecard Control, Bethpage, Aircraft Systems Division, died Sept. 28 at the age of 49. She had been with the company since 1970 and her address was P.O. Box 114, St. Albans, N.Y.

Mark D. Morgan of Requirements Planning, Great River, Electronics Systems Division, died July 18 at the age of 34. He had been with the company since 1981 and resided at 19 Continental Dr., Port Jefferson Station, N.Y.

Jose J. Munoz of Subsystems, Bethpage, Aircraft Systems Division, died Sept. 29 at the age of 38. He had been with the company since 1980 and resided at 8 Shore Rd., Patchogue, N.Y.

Joseph V. Pagano of ILS Equipment Design Engineering, Melville, Aircraft Systems Division, died Oct. 5 at the age of 31. He had been with the company since 1984 and resided at 2770 Falcon St., East Meadow, N.Y.

Ronald V. Pulis of Assembly Methods and Planning, Calverton, Aircraft Systems Division, died July 21 at the age of 44. He had been with the company since 1972 and resided at 18 Barteau Ave., Blue Point, N.Y.

Gerard F. Peithman of Instrument Ground Test, Bethpage, Aircraft Systems Division, died July 1 at the age of 60. He had been with the company since 1956 and resided at 109 Ocean Ave., Bayshore, N.Y.

I Heard It At The Pin Meeting

(Continued from page 3)

work the system and put the products together.

Now, we deliver a quality product, don't misunderstand me. That's because we rebuild it and rebuild it and rework it until we get it right. Last year we spent about $27 million reworking things that should have been done right the first time. That's close to a dollar a share before taxes!

What about day care?

O'Brien: I'm going to let Bob Foster [director of Personnel] answer that one.

Foster: We're working with a coalition of companies to develop plans for day care. I don't have anything specific to report to you, only to say that it might be a facility that each of the participating companies would have a stake in. We are giving monetary support right now, and we have employees working on it.

O'Brien: One of the problems with day care is that a facility in Calverton, for instance, wouldn't do you much good if you work in Bethpage. And Grumman is all over the map. So it's important that we get community support for properly managed facilities that everyone can participate in.

I started here 15 years ago, when we were pushing the F-14 out. The attitude then was, "You can do it." I've seen that shift over the years, and I think negative attitudes and poor morale are ruining this company. Instead of, "Let me see what I can do," it's "No way, we can't do it."

O'Brien: You've got to fight it at your own level, and I know it's frustrating. But "can do" comes from you. You've got to fight that negative attitude, and insist that the people around you give you what you need.

I've been here 15 years myself, and I hear a lot of negative remarks about Grumman's spirit. But I've spent a lot of time out in the field, and Grumman tech reps, Grumman mechanics are the best. The Navy will tell you that.

O'Brien: That's been confirmed. And from my trips to other companies, I don't see people as good or as competent as the people we have here. But there still is a spirit problem — a "can't do" attitude. Let's solve the problem and make our company better than the best. That's what I'm after.

I don't think we want to win enough. We're not ruthless enough. Not *mean* ruthless, but ruthless in wanting to win, legally and fairly. We don't think enough about how we do things.

You've got to get up and say what's on your mind. I don't think there's enough of that in this company. You have to do it, in spite of the risk. You have to tell your supervision why you can't do the job you were given to do, why the machine doesn't work right, what the problems are. You can't wait to raise hell with the chairman when you see him every five years to get your pin, or when he walks through your building.

And I'll take your suggestion on that. Someone said before that I haven't been visible enough, so I'll make it a point to get around more.■

An Interview With Technical Services President Wiley Williams

'We'll Stretch To Reach Our Goals, But We Are Going To Do It'

TITUSVILLE, Florida — "We're a small but profitable division," says Wiley Williams, president of Grumman Technical Services Division. "In terms of sales, we're obviously a small fish in the Grumman pond."

With $107 million in sales and 2,000 people, the division is small, compared to other Grumman divisions. Yet, this Florida-based division has the aerospace and computer expertise of the Aircraft, Data and Space Systems Divisions, and the "get out and sell" pressures of Allied. Its presence at air bases around the world gives the other divisions valuable information about upcoming jobs and product performance. And bringing in Technical Services' low-overhead capabilities on some proposals gives Grumman a better shot at winning new contracts.

If anyone projects an image that mirrors the organization, Wiley Williams does. He's trim and lean. He claims he's never had a boring day in his 30-year career, though he admits not all of them have been fun. Nearly all of his career has been with NASA, except when he left to become director of Grumman's Lunar Module Operations from 1967 to 1972. He then returned to NASA.

Williams retired from NASA in 1985 as head of cargo operations for the Space Shuttle. He has been the president of Technical Services for a little over a year. He spent two years as head of the Division's Shuttle Processing Contract effort under subcontract to Lockheed Space Operations.

'Everyone suffered through hard times and travail and trauma with Challenger.'

"Our division was built on the Shuttle Processing Contract," he says. "A few years ago, we added a big piece of the Field Services unit of Aircraft Systems. These people provide engineering services for our own products.

"Our Operations and Maintenance group operates and maintains aircraft trainers and simulators and performs maintenance on our own as well as aircraft of other firms plus equipment manufactured by Great River Operations. And last year we formed an international business unit."

The 750 members of the shuttle processing team work at the Kennedy Space Center under vice president and project director "Skip" Olson. They operate and maintain the computers and software used to prepare and launch the space shuttle. They are also responsible for instrumentation and calibration at the shuttle launch site.

The shuttle processing contract accounts for nearly all of the division's NASA work, about $36 million in business. That is locked in for the next several years, "so we're not expecting any near-term expansion," says Williams.

The launch of *Discovery* last month was critical to the future of this program. But, Williams says, Technical Services people weren't thinking profit and loss as the seconds in the countdown ticked away. "It's more than just money involved here. Everyone suffered through hard times and travail and trauma with *Challenger.* Our people put their heart and soul into this."

"As we got closer to launch day, everybody had a feeling of anticipation. It's contagious. Everybody acted almost like kids," he says. "The morale was high going into the countdown, and it certainly was high coming out."

But the shuttle program had been scaled back. Grumman now has no Shuttle Processing Contract presence at Vandenberg Air Force Base, says Williams. The Air Force Shuttle effort was essentially mothballed after Challenger.

Yet there are some space business prospects.

"Within the next year there may be one or two opportunities coming up at Marshall, Langley and other NASA centers," he says. Technical Services will team again with Lockheed for a job to design and activate the next generation of check-out equipment for the space station.

At about $20 million, "O and M" — short for Operations and Maintenance — is a relatively new Grumman business, but it's the one with the greatest near-term growth potential for Technical Services. The market opened for Grumman about five years ago, when the Navy decided to stop servicing its own trainers and simulators and contract the work to private companies instead.

Since then, the market has spread to ground support equipment service, aircraft maintenance, range operations and the like for all the services. Mike Lenzo, the director, now has 400 people working these jobs at naval air stations, air bases and training ranges throughout the country.

"We're still determining the size of this market," says Williams. "But just in the jobs that we have targeted through 1993, we are looking at a potential of $142 million in business."

"They are small jobs, worth $3 or $4 million a year," he says. "It's a competitive market. We have to work hard at keeping our overheads low."

A small upstart in this business, Technical Services is up against such giants as RCA Services, Ford Aerospace, McDonnell Douglas Services, and Northrop Services for contracts to operate ranges and other Air Force Work.

"If you talk about flight trainers and flight simulators you not only have Singer and some of the other trainer manufacturers, you've also got a lot of small, lean companies. It can be a dog-eat-dog market out there."

Nonetheless, he states, "We have an aggressive management plan and our projection is that by 1993 we could have seven times the business we have now in O and M."

The largest business unit now is Field Engineering, bringing in $39 million in revenue. The 450 Grummanites in this group service Grumman products at naval air stations, air bases and on carriers around the world.

They are a legendary part of Grumman. Grumman technical reps go wherever the customer is, working side by side under the same conditions the customer faces. The character of the tech reps' service was personified in their most famous department head, the late Roger Wolfe Kahn. It was nothing for him to hop into the cockpit of his own Grumman Bearcat and roar off to a naval air station to make sure that customers were getting the help they needed.

The quality of service hasn't changed over the years, but the problems of cost control have been magnified. So, two years ago, the tech reps were transferred from Aircraft Systems. Putting the tech reps in Technical Services — with its lower overhead — keeps costs down.

The site managers, however, remained in Aircraft Systems. They and the tech reps come under George Tomlinson, the director of Field Engineering and Field Operations. But Tomlinson reports to both Williams and Pete Oram, the president of Aircraft Systems.

"This arrangement gives Grumman a close relationship between the Aircraft Systems program and the customer," Williams explains. "The site managers report data; they work problems back through Aircraft Systems."

Technical Services' international business is wrapped up in one contract: a $34 million project for the Saudi Arabian Air Force called Ground Environment Navigational Aids (GENA). "We're struggling there," Williams says. "There's a Mideast culture we're just starting to understand. The operation itself is going quite well.

"The problem is getting the people," he says. The Saudi government requires extensive documentation before it will approve any potential employee. Technical Services is now getting to a level of 430-450 GENA employees.

Moreover, there are unusual administrative problems. Most of the work force is British. They convert their pay to pounds after they are paid in riyals, the Saudi currency. Riyals, however, are pegged in value to the U.S. dollar, which has dropped recently relative to the pound. This has pushed up payroll costs.

In 1990, Technical Services will tackle a portion of the Peace Pearl program. Williams says, "Aircraft Systems is designing and building update kits for the F-8 fighter for the People's Republic of China. Technical Services will procure spares for the program, worth close to $100 million."

'We have to work hard at keeping our overheads low.'

The headquarters staff managing all these business units has long outgrown its small, one-story building in Titusville. Even with two temporary buildings, there's no elbow room. The division is building a new headquarters with room to grow. They'll be moving in next spring.

If anything can be said to set the mood for the entire division, it has to be the euphoria of the recent launch of *Discovery* after nearly three years of a shuttle program in limbo. It couldn't come at a better time. "We certainly have some big challenges with our sales and profit targets, and we're attacking those with a lot of zeal," Williams states. "We'll stretch to reach our goals, but we are going to do it."■

Four More Grumman Divisions Subscribe To 'GQ'

Eight of the 11 Grumman divisions are now participating in Grumman Quality.

Recently, the Aerostructures, Allied, Space Systems, and St. Augustine Divisions launched their first quality action teams. They join their counterparts in Aircraft Systems, Corporate Services, Data Systems, and Electronics Systems. In all, over 300 people are involved throughout the company.

The following two action teams represent different Grumman divisions. But both are working on problems in the proposal process.

The Price Of Space

Working in space requires a lot of a very down-to-earth resource: money.

In the Grumman Space Systems Division, a GQ action team is working to improve the way cost estimates are prepared. In proposals for civil and military space contracts, estimates determine whether the division gets the funds it needs to do its work.

To speed up the estimating process and make it more accurate, the team will develop a plan for a computerized cost database, which would be set up by the end of next year.

"This database will have historical data on our costs to build space hardware, integrate subsystems, and develop software," says Joe Marino, the division's director of engineering. "We'll look at the number of hours it has taken to produce a drawing, the time taken to make a tool, and the hours spent developing a line of software code. We'll also look at our supplier costs."

"Now, we do grassroots estimation — what we think it will cost," says Bob Brown, business manager for the division. "It's based on the subjective judgment of people working on the proposal, as opposed to hard facts. And as a result, it's a long, expensive process to put together a cost proposal."

By cutting that time, the database will save money. Furthermore, with information on where "hidden" costs are incurred, proposal teams will be better equipped to trim nonessentials out of a proposal and thereby lower their bids.

And all that, says Marino, will mean a better business outlook for the division. "Some of Grumman's competitors have cost databases for space work, but just as many do not."

Brown says there are a dozen or so related issues that could be addressed by the team in the future. "That's one of the benefits of Grumman Quality," he says. "It's a quick and efficient way to identify your organization's problems — and get to the heart of them."

Changing For The Better

A subcontractor change proposal is made by a company, such as Grumman Aerostructures Division, that does work under subcontracts to another aerospace firm. An SCP outlines how Aerostructures will change and improve the design of a subsystem it builds. One of that division's two new action teams is trying to come up with ways to create these proposals quicker and more accurately.

"Customers, whether prime government contractors or commercial aircraft manufacturers, usually want all the facts about the work and what it will cost before a design is on paper," says Steve Weinberg, director of Business Operations for Aerostructures and co-leader of the action team.

Inaccurate information can lead the customer to agree to a change without weighing all the facts. And an incorrect cost estimate can send both companies back to the negotiating table.

A key part of a subcontractor change proposal is the work statement, which informs departments of how a change will affect them. "We seem to do a good job of estimating a change's impact on various disciplines in engineering," says Weinberg. "We need to become better at determining that effect on tooling, procurement, manufacturing, and suppliers."

The team is gathering statistics from a sampling of change proposals. Among other issues, the team will look for a trend in when delays occur and whether there are too many approval steps.

"By studying the different programs, we'll be able to find some good methods of doing work statements and SCPs," says Walter Ludwig, director of Development. "Then we can draw up divisional guidelines."

Both Grummanites praise Grumman Quality. "People tend to follow a shotgun approach in dealing with problems," says Weinberg. "This is a logical, structured way to attack a problem, analyze it, and solve it."

"Most people sincerely want to do their jobs better," says Ludwig. "This will open up all the lines of communication — throughout our organization and the entire corporation."■

Fact Finding. *Space Systems team discusses a cost-estimating database. Shown are (above right, L-R) guest Rick Wilson, manager, Advanced Programs Estimating, Aircraft Systems Division; John DeFlora, manager of Estimating-Space Systems Division; guest Stan Burns, design-to-cost specialist for Aircraft Systems; Al Nathan, director, Flight Telerobotic Servicer Program; Bob Stark, director, Procurement; and Mark Spaulding of ODI. Above left, team leader Joe Marino presents some information to the group. (Photos by Bob Settles)*

Poring Over Proposals. *Aerostructures people discuss change proposals: (left) Steve Weinberg; George Haggerty, manager, Procurement; (above) Frank Lagonigro, configuration data manager, Boeing 767; and Lou Riedel, C-17 Product Ops manager. Missing: Walter Ludwig and Walt Kuklinski, Material manager.*

First Of Many

Grumman Data Systems recently scored a "first" for Grumman Quality: for the first time, the two-day quality training course was taught by Grumman facilitators.

Until now, such classes and the subsequent action teams have been led by people from Organizational Dynamics, Inc. This time, Jim Kinneman, manager of support services planning for Grumman Systems Support, and Carole Korade, Data Systems manager of Network Control, were at the head of the class.

The class members, all from Systems Support, went on to form one action team. Kinneman stayed on as its facilitator. The team's problem: too often, field engineers get back inoperable circuit boards from repair depots. The action team includes a representative from every department involved in the cycle.

J. C. Alston

S. L. Baker

R. Benson

M. J. Bontempi

C. Brewster

L. C. Brown

H. Caroll

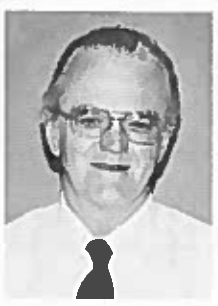
D. J. Coffey

D. J. Collins

S. Dannenberg

J. Davis Jr.

L. J. DiBono


H. J. Donnelly

R. J. Douso

S. E. Ettlinger

V. J. Giaroina

S. Green

J. F. Greene Jr.

J. T. Greer

B. H. Greiner Jr.

W. Harris Jr.

C. G. Haubeil

H. L. Holloman

P. C. Hólmgren

B. B. Horak

J. L. Hutcherson

J. W. Karris

J. C. Kaull

M. P. Koop

W. M. Lewis II

A. M. LoPalo

E. L. Malloy

T. J. Maloney

C. A. Marin

V. J. Murtha

E. C. Nissen

W. E. Olsen

R. J. Pekar

D. J. Plate

G. C. Rath

L. P. Ready

J. R. Riccobono

E. L. Rich

G. Richardson

H. M. Roach

J. H. Rooks

R. H. Sprague

R. Stacknowitz

J. J. Watson

J. Wilson Jr.

C. M. Wood

A. M. Young

Service Milestones

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Lillian C. Schleicher, Bethpage, Paumanock Development

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Frank L. Sapone, Bethpage, Aircraft Systems

40

Arthur T. Fagan, Bethpage, Data Systems
John M. Miller, Bethpage, Aircraft Systems
Robert A. Nafis, Bethpage, Electronics Systems
Vincent J. Priebe, Bethpage, Corporate Services
John K. Stotz Jr., Bethpage, Grumman Corporation

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Harry F. Bodnar, Bethpage, Aircraft Systems
John J. Cummings, Bethpage, Aircraft Systems
Alfred F. Denton, Bethpage, Aircraft Systems
James M. Leather, Irvine, Space Systems
Robert Tallman, Bethpage, Aircraft Systems

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Louis P. Belanger, Bethpage, Corporate Services
Frederick J. Bronleben Jr., Melville, Aircraft Systems
Eugene H. Capobianco, Bethpage, Aircraft Systems
Irwin Cohen, Melville, Aircraft Systems
John E. Connolly Jr., Great River, Electronics Systems
George E. DeVoe Jr., Bethpage, Aircraft Systems
Patrick F. DiMarzo, Bethpage, Aircraft Systems
Thomas J. Doyle III, Stuart, Aircraft Systems
Mario M. Gigliati, Bethpage, Aircraft Systems
Thomas E. Griffin, Bethpage, Aircraft Systems
Gustave W. Hansmann, Melville, Aircraft Systems
Edward A. Hazard, Bethpage, Aircraft Systems
Henry Hoeh Jr., Great River, Electronics Systems
William Kirschberger, Bethpage, Aircraft Systems
Albert A. Knight Jr., Great River, Electronics Systems
Robert J. Koegel, Bethpage, Aircraft Systems
Robert J. Lecat, Bethpage, Aircraft Systems
Herbert Leung, Melville, Aircraft Systems
Anthony T. Mascia, Melville, Aircraft Systems
Erwin S. McCalla, Bethpage, Corporate Services
James J. McCarthy, Melbourne, Melbourne Systems
Louis P. Minerva, Melville, Aerostructures
Robert E. Papsco, Bethpage, Space Systems
Roger B. Seybel, Melville, Aircraft Systems
Julius Sokolow, Bethpage, Aircraft Systems
James W. Stapleton Jr., St. Augustine, Aircraft Systems

(Continued on page 8)

Great Decisions '89

Please sign me up for the Great Decisions program.

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Great Decisions Sets '89 Agenda

Want to become better informed about foreign affairs? Sign up for the 1989 Great Decisions program at Grumman.

Participants meet one evening each week for about 12 weeks to discuss important global issues. You can sign up for Tuesday, Wednesday, or Thursday night meetings.

The topics for 1989 include: ethics in international relations, the U.S. role in the Persian Gulf, Latin American debt, arms agreements, China, farmers and food, famine in the Horn of Africa, and international drug traffic.

Great Decisions is a project of the nonpartisan Foreign Policy Association. About 250,000 people participate, most in groups sponsored by community organizations, schools, churches, synagogues, the military, and public libraries. In 1984, Grumman became one of the first corporations to establish a program.

Participants will receive, at no cost, a Great Decisions briefing book. It contains chapters on each of the topics. In each chapter is an in-depth article, views of current administration officials and their critics, and suggested readings.

Participants spend about two meetings discussing each topic. Once discussion is finished, they record their opinions on a ballot. This is tabulated by the Foreign Policy Association, which puts together an annual report for America's political leaders.

Although the meetings have been held in Bethpage, the program attracts a smattering of people from other Long Island sites — as well as Grumman retirees. In 1989, meetings will be held in Melville for the first time.

"I thoroughly enjoyed the program," says Bud Mitzman, a 1988 participant. "It's a weekly opportunity to brush up on some important subjects, and to discuss your ideas with other people."

A mock debate was one highlight of the Thursday night meetings Mitzman attended. Each participant was assigned a Middle Eastern nation, and each had to research the views of that nation on a host of issues. Participants then had to represent those countries in the following week's discussion.

Mitzman drove into Bethpage from Great River, where he works. "The drive didn't bother me one bit — I looked forward that much to the meetings," says Mitzman.

To sign up for Great Decisions 1989, fill out the coupon on this page and send it to Great Decisions '89, A32-GHQ.■

Blood Drive Big Success In Md.

It was close to Labor Day. It was a Friday. They were in the middle of a heat wave. The Red Cross called these conditions "notoriously poor" for a blood drive. However, 29 percent of the Grummanites at Salisbury Operations donated blood on August 26.

"This was a real success story all the way through," said David Jones of the Central Maryland Chapter of the Red Cross.

Around 140 out of an employee population of 488 stepped up to donate. More than half of the donors were first-timers. The Red Cross collected 116 units of blood.

"I was quite surprised and elated about the number of people who stepped forward," said Ralph Aponte, Salisbury Ops' director of Personnel Administration. They plan to make this a twice-yearly event.

Jones says 20 percent participation over an entire year, not in one drive, is considered good. "This was an outstanding effort," he says.■

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Service Milestones

(Continued from page 7)

William T. Turnquist, Great River, Electronics Systems
Edward C. Ulrich, Bethpage, Aircraft Systems
Aphrodite Vasilakos, Bethpage, Corporate Services
Bartlam T. Whitehurst, Calverton, Aircraft Systems

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Johnny C. Alston, Bethpage, Aircraft Systems
Stanley L. Baker, Bethpage, Aircraft Systems
Irving P. Ballou, Great River, Electronics Systems
Robert Benson, Milledgeville, Aircraft Systems
Claire S. Bergonzi, Bethpage, Data Systems
Mario J. Bontempi, Bethpage, Corporate Services
Charles Brewster, Bethpage, Aircraft Systems
Lester C. Brown, Bethpage, Corporate Services
Harry Caroll, Bethpage, Aircraft Systems
Dennis J. Coffey, Bethpage, Aircraft Systems
Daniel J. Collins, Bethpage, Aircraft Systems
Sanford Dannenberg, Great River, Electronics Systems
Joe Davis Jr., Bethpage, Aircraft Systems
Leonard J. DiBono, Bethpage, Corporate Services
Henry J. Donnelly, Melbourne, Melbourne Systems
Rocco J. Douso, Bethpage, Corporate Services
Susann E. Ettlinger, Bethpage, Aircraft Systems
Vito J. Giaroina, Bethpage, Aircraft Systems
Stanley Green, Bethpage, Aircraft Systems
James F. Greene Jr., Bethpage, Aircraft Systems
John T. Greer, Bethpage, Corporate Services
Bernard H. Greiner Jr., Bethpage, Aircraft Systems
Welding C. Griggs, Woodbury, Data Systems
Ray Hahn, Sturgis, Allied
Albert J. Hanner, Melville, Aircraft Systems
William Harris Jr., Melville, Electronics Systems
Charles G. Haubeil, Bethpage, Corporate Services
Horace L. Holloman, Bethpage, Aircraft Systems
Peter C. Holmgren, Bethpage, Aircraft Systems
Barbara B. Horak, Great River, Electronics Systems
William F. Hughes Jr., Bethpage, Corporate Services
John L. Hutcherson, Great River, Electronics Systems
John W. Karris, Great River, Electronics Systems
John C. Kaull, Great River, Electronics Systems
Martin P. Koop, Great River, Electronics Systems
Carol A. LaNier, Bethpage, Aircraft Systems
Willard M. Lewis II, Titusville, Technical Services
Ann M. LoPalo, Bethpage, Corporate Services
Everett A. Loeffler, Bethpage, Aircraft Systems
Robert M. Madey, Melville, Aircraft Systems
Evelyn L. Malloy, Bethpage, Aircraft Systems
Thomas J. Maloney, Bethpage, Data Systems
Cesar A. Marin, Bethpage, Aircraft Systems
Harvey P. Mason, Bethpage, Aircraft Systems
John T. McNamara Jr., Los Angeles, Aircraft Systems
Mary S. Mickol, Bethpage, Aircraft Systems
Robert L. Miller, Great River, Electronics Systems
Vincent J. Murtha, Great River, Electronics Systems
Ernest C. Nissen, Bethpage, Aircraft Systems
Walter E. Olsen, Bethpage, Aircraft Systems
Leo D. Owens, Sherman, Allied
Robert J. Pekar, Calverton, Aircraft Systems
John J. Pinto, Great River, Electronics Systems
Donald J. Plate, Great River, Electronics Systems
George C. Rath, Bethpage, Aircraft Systems
Lawrence P. Ready, Milledgeville, Aircraft Systems
John R. Riccobono, Bethpage, Aircraft Systems
Earnest L. Rich, Bethpage, Aircraft Systems
George Richardson, Great River, Electronics Systems
Helen M. Roach, Melville, Aircraft Systems
John H. Rooks, Melbourne, Melbourne Systems
Saverio A. Rucci, Bethpage, Aircraft Systems
Richard Sicuranza, Great River, Electronics Systems
Roy H. Sprague, Bethpage, Corporate Services
Robert Stacknowitz, Melville, Aircraft Systems
Gerald R. Stafford, Marathon, Allied
Francis Varga, Bethpage, Aircraft Systems
William M. Vojir, Bethpage, Aircraft Systems
George W. Wachsmuth, Calverton, Aircraft Systems
James J. Watson, Bethpage, Data Systems
Joseph Wilson Jr., Bethpage, Corporate Services
Carole M. Wood, Bethpage, Grumman Credit Corporation
Andrew M. Young, Bethpage, Corporate Services

Lost Tickets?

Travel Operations reports that as of October 1, the fee for processing a lost airline ticket has gone up from $35 to $50. This fee is imposed by all the major airlines, not the travel agents.

Readership Survey

We don't want to do all the talking. We'd like to know what you think about the things you see in these pages. Your comments, suggestions and complaints are welcomed. Please take a few minutes and give us your opinions.

Article	Great	Good	Poor	Didn't Read
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McGrath Interview (P. 2)	☐	☐	☐	☐
Pin Meeting (P. 3)	☐	☐	☐	☐
Williams Interview (P. 5)	☐	☐	☐	☐
GQ (P. 6)	☐	☐	☐	☐

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